

FILED ELECTRONICALLY

PATENT APPLICATION
Docket No. 16274.180

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re application of: | |) |
| | Dipl.-Ing. Karl Schrodinger |) |
| Serial No.: | 10/789,647 |) Art Unit |
| | |) 2828 |
| Filed: | February 27, 2004 |) |
| | |) |
| For: | OPTOELECTRONIC ARRANGEMENT |) |
| | |) |
| Confirmation No.: | 9146 |) |
| | |) |
| Customer No.: | 022913 |) |
| | |) |
| Examiner: | Tuan N. Nguyen |) |

RESPONSE TO OFFICE ACTION MAILED 23 FEB 06

**Mail Stop: AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Sir:

Applicant submits this paper in response to the Office Action mailed February 23, 2006 (the "Office Action"). Reconsideration is respectfully requested in view of the following amendments and remarks:

A Listing of the Claims begins on page 2 of this paper; and

Remarks begin on page 5 of this paper.

LISTING OF THE CLAIMS

The following is a listing of claims pending in the application.

1. **(Previously Presented)** An optoelectronic arrangement, comprising:
 at least one emission component,
 a monitor component, which is operatively coupled to the emission component and
 detects at least some radiation radiated by the emission component,
 a driver circuit electrically connected to the emission component and the monitor
 component, and
 a carrier substrate,
 the driver circuit being formed as a circuit integrated into the carrier substrate,
 the monitor component likewise being integrated into the carrier substrate, and
 the emission component being formed as a separate structural part and being arranged on
 the carrier substrate.
2. **(Previously Presented)** The arrangement according to Claim 1, the monitor component
 comprising a photodiode having a pn junction integrated into the carrier substrate.
3. **(Previously Presented)** The arrangement according to Claim 1, the emission component
 comprising a vertically emitted laser component which is fixed above the monitor component on the
 carrier substrate, part of the laser light being radiated upward and part of the laser light being radiated
 downward on to the monitor component.
4. **(Previously Presented)** The arrangement according to Claim 3,
 the laser component comprising a laser substrate and a laser resonator,
 the laser resonator being arranged at a side of the laser component which is remote from
 the carrier substrate, and
 the laser substrate having, at a side facing the carrier substrate and in a manner adjoining
 the laser resonator, a cutout in such a way that downwardly radiated light falls on to the monitor
 component.

5. **(Previously Presented)** The arrangement according to Claim 3,
the laser component comprising a laser substrate and a laser resonator,
the laser resonator being arranged at a side of the laser component which faces the carrier substrate, and
the laser substrate having, at a side remote from the carrier substrate and in a manner adjoining the laser resonator, a cutout that facilitates radiating light away from the carrier substrate.
6. **(Previously Presented)** The arrangement according to Claim 5, the laser component being arranged with a top side facing toward the carrier substrate and in this case having one or more electrical contacts located at the top side.
7. **(Previously Presented)** The arrangement according to Claim 1, the emission component being formed as a laser chip.
8. **(Previously Presented)** The arrangement according to Claim 1, the emission component being connected to the carrier substrate by at least one of adhesive bonding and wire bonding.
9. **(Previously Presented)** The arrangement according to Claim 1, the emission component being connected to the carrier substrate by flip-chip mounting.
10. **(Previously Presented)** The arrangement according to Claim 3, further comprising an array of vertically emitting laser components and respectively assigned monitor components, wherein at least some of the laser light is radiated downward onto the associated monitor components.
11. **(Previously Presented)** The arrangement according to Claim 10,
the array of vertically emitting laser components having a common laser substrate and respective laser resonators for the laser components,
the respective laser resonators being arranged at respective sides of the laser components that face the carrier substrate, and
respective laser substrates for the laser components having, at a side remote from the carrier substrate and in a manner adjoining the laser resonators, respective cutouts that facilitate radiating light away from the carrier substrate.

12. **(Previously Presented)** The arrangement according to Claim 10, the laser components of the array being connected as redundant components.

13. **(Previously Presented)** The arrangement according to Claim 3, the carrier substrate being transparent to the radiated light.

14. **(Previously Presented)** The arrangement according to Claim 3, the emission component emitting light having a wavelength of between 650 and 850 nm.

15. **(Previously Presented)** The arrangement according to Claim 14, wherein the emission component comprises GaAs.

16. **(Previously Presented)** The arrangement according to Claim 1, wherein the emission component comprises a vertically emitting laser component (VCSEL).

17. **(Previously Presented)** The arrangement according to Claim 1, wherein the driver circuit is integrated monolithically into the carrier substrate.

18. **(Previously Presented)** The arrangement according to Claim 1, wherein the monitor component is integrated monolithically into the carrier substrate.

19. **(Previously Presented)** The arrangement according to Claim 1, wherein the monitor component comprises a diode.

20. **(Previously Presented)** The arrangement according to Claim 19, wherein the emission component comprises a laser chip, the diode being integrated monolithically into the carrier substrate and the laser chip being located on the carrier substrate above the diode.